

HAND-BOOK
OF
ANATOMY FOR ARTISTS

52678/19

Third Edition, 32mo. Price 3s. 6d.

**The Anatomical Remembrancer,
Or, COMPLETE POCKET ANATOMIST;**

CONTAINING A CONCISE DESCRIPTION OF THE BONES, LIGAMENTS,
MUSCLES, AND VISCERA ;—THE DISTRIBUTION OF THE NERVES,
BLOOD VESSELS, AND ABSORBENTS — THE ARRANGEMENT OF
THE SEVERAL FASCIÆ ;—THE ORGANS OF GENERATION IN THE
MALE AND FEMALE ; AND THE ORGANS OF THE SENSES.

“ The Anatomy is correctly given, and the descriptions, though condensed to the very highest degree, still remain clear and intelligible.”—*Lancet.*

S. HIGHLEY, 32, FLEET STREET, LONDON,
MACLACHLAN & CO., EDINBURGH ; FANNIN & CO., DUBLIN.

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30353944>

NEW MEDICAL WORKS,

PUBLISHED BY

SAMUEL HIGHLEY, 32, FLEET STREET.

MICROSCOPIC ANATOMY OF THE HUMAN BODY IN HEALTH AND DISEASE.

By ARTHUR H. HASSALL, M.R.C.S. Eng., F.L.S.

In Monthly parts, 8vo, Price 2s. 6d. each, with numerous coloured Plates. Part 7, on the 1st of February, 1847. The work will be completed in about 12 Parts.

"Mr. Hassall's publication deserves to be ranked amongst the most important and valuable of the works of the present day. Its design and objects are essentially practical.—The plates are beautifully executed and coloured, and convey a perfect idea of the objects which they are intended to illustrate."—*Lancet*, Dec. 5, 1846.

ASHWELL ON DISEASES OF WOMEN, 2nd Edit.

A Practical Treatise on the Diseases peculiar to Women, illustrated by Cases derived from Hospital and Private Practice. By SAMUEL ASHWELL, M.D., late Obstetric Physician and Lecturer at Guy's Hospital. 8vo, Price £1 1s.

"The most able, and certainly the most standard and practical work on Female Diseases, that we have yet seen."—*Medico-Chirurgical Review*,

"The young practitioner will find it invaluable, while those who have had most experience will yet find something to learn and much to commend in a book which shows so much patient observation, practical skill and sound sense."—*Forbes' Medical Review*,

TRANSACTIONS OF THE MEDICAL SOCIETY OF LONDON.

CONTAINING PAPERS

On the Use of the Microscope in Anatomy, Physiology, and Pathology.

By Mr. THOMAS BELL, F.R.S., &c.

On the Cause and Treatment of Stammering. By Mr. J. BISHOP, F.R.S.

On the Nervous System, particularly the Excito-motory, or Reflex-function.

By Mr. G. PILCHER.

On the Prevention and Treatment of Apoplexy, and Hemiplegia.

By Dr. MARSHALL HALL.

On the Incubation of Insanity. By Dr. FORBES WINSLOW.

ALSO PAPERS BY

Dr. J. R. Bennett; Mr. Bryant; Mr. Crisp; Mr. Dendy; Dr. Garrod; Mr. Headland; Mr. Hutchinson; Mr. Linnecar; Mr. Robarts; Mr. Stedman; Dr. T. Thomson; Dr. Waller, &c. 8vo., Plates. Price 9s.

TRAVERS ON INFLAMMATION.

The Physiology of Inflammation and the Healing Process. By BENJAMIN TRAVERS, F.R.S., Surgeon Extraordinary to the Queen, &c. 8vo, Price 7s.

"We believe that it may rank among the most important contributions which the literature of this department has received in modern times."—*Forbes' Medical Review*.

PARIS' PHARMACOLOGIA, 9th Edit.

Being an Extended Inquiry into the Operations of Medicinal Bodies, upon which are founded the Theory and Art of Prescribing. Re-written, in order to incorporate the latest Discoveries in Physiology, Chemistry, and Materia Medica. By J. A. PARIS, M.D., F.R.S., President of the Royal College of Physicians. 8vo, price 20s.

HIGHLEY'S GENERAL MEDICAL CATALOGUE

of Modern Works; with their Prices and Dates, Price 1s.

NEW MEDICAL WORKS, PUBLISHED BY

PHILLIPS' PHARMACOPŒIA, 4th Edit.

A Translation of the Pharmacopœia Collegii Regalis Medicorum Londinensis, with copious Notes and Illustrations; also a Table of Chemical Equivalents. By RICHARD PHILLIPS, F.R.S., L. & E. 8vo, Price 10s. 6d.

BENNETT ON HYDROCEPHALUS.

An Essay on the Nature, Diagnosis, and Treatment of Acute Hydrocephalus, being the Fothergellian Prize Essay of the Medical Society of London. By J. RISDON BENNETT, M.D., Assistant Physician to St. Thomas's Hospital. 8vo, Price 8s.

"We have perused this work with unmixed satisfaction, and congratulate the London Medical Society on having elicited so valuable a contribution from its talented author."

Medico-Chirurgical Review.

"It is a most excellent prize Essay—evidently the production of a well informed writer, and able physician."—*Forbes' Medical Review.*

BILLING'S MEDICINE, 4th Edit.

First Principles of Medicine. By ARCHIBALD BILLING, M.D., F.R.S., Member of the Senate of the University of London; Fellow of the Royal College of Physicians, &c. 8vo, Price 10s. 6d.

SAMPSON'S HOMŒOPATHY, 2nd Edit.

HOMŒOPATHY; its Principle, Theory and Practice. By M. B. SAMPSON. 8vo. 2nd Edition. (*In the Press.*)

BY THE SAME AUTHOR.

CRIMINAL JURISPRUDENCE CONSIDERED in Relation to Cerebral Organization. 8vo. Price 5s. Second Edition, enlarged.

LAENNEC'S MANUAL OF AUSCULTATION.

A Manual of Percussion and Auscultation, composed from the French of Meriédec Laennec. By J. B. SHARPE. 18mo. Second Edition, Improved and Enlarged. Price 3s.

MEDICO-CHIRURGICAL REVIEW, New Series.

Each Number contains nearly Three Hundred pages of closely printed CRITICAL ANALYSIS of all the best Works, Foreign and Domestic, forming a Quarterly LIBRARY of PROGRESSIVE PRACTICAL MEDICINE and SURGERY.

Published Quarterly, on the 1st of January, April, July, and October.

STOWE'S CHART OF POISONS, 10th Edit.

A Toxicological Chart, exhibiting at one view the Symptoms, Treatment, and mode of Detecting the various Poisons, Mineral, Vegetable, and Animal; to which are added Concise Directions for the Treatment of Suspended Animation. By W. STOWE, M.R.C.S., Varnished and mounted on cloth, with roller, 6s., or 2s., the plain Sheet.

SAMUEL HIGHLEY, FLEET STREET.

A SERIES OF
ANATOMICAL SKETCHES AND DIAGRAMS.

With Descriptions and References.

By THOMAS WOMALD and A. M. Mc WHINNIE,

Teachers of Practical Anatomy at St. Bartholomew's Hospital. 4to, Price 26s.

"Remarkable for their correctness, perspicuity, and neatness of execution."

Forbes' Medical Review.

THE ANATOMICAL REMEMBRANCER,
OR, COMPLETE POCKET ANATOMIST;

Containing a concise description of the Bones, Ligaments, Muscles, and Viscera;—the Distribution of the Nerves, Blood Vessels, and Absorbents—
—the Arrangement of the several Fasciæ;—the Organs of Generation in the Male and Female; and the Organs of the Senses. 2nd Edition. 32mo, Price 3s. 6d.

"The Anatomy is correctly given, and the descriptions, though condensed to the very highest degree, still remain clear and intelligible."—*Lancet.*

GUY'S HOSPITAL REPORTS. *New Series.*

VOL. I—1843. Price 16s. 6d. VOL. II, III & IV,—1844, 1845, 1846. Price 13s. each. To be continued in yearly volumes (only), published in October.

BELL ON DISEASES, &c. OF THE TEETH.

The Anatomy, Physiology, and Diseases of the Teeth. By THOMAS BELL, F.R.S., F.L.S., F.G.S., Lecturer on Diseases of the Teeth at Guy's Hospital, and Professor of Zoology in King's College. Second Edition. 8vo, Price 14s. Containing upwards of 100 Figures, illustrative of the Structure, Growth, Diseases, &c., of the Teeth.

CLENDON ON EXTRACTION OF TEETH. *2nd Edit.*

Observations on the Extraction of Teeth. By J. CHITTY CLENDON, M.R.C.S., and Surgeon-Dentist and Lecturer on the Teeth to the Westminster Hospital, 2nd Edit. enlarged, fcap. 8vo, with Plates. Price 4s.

SMELLIE'S OBSTETRIC PLATES;

Exhibiting, in a Series of Engravings, the process of Delivery with and without the Use of Instruments, accompanied by Anatomical Descriptions and practical Instructions. 8vo, Price 5s.

SELECTA E PRÆSCRIPTIS, *9th Edit. Improved.*

SELECTIONS FROM PHYSICIANS' PRESCRIPTIONS;
Containing

Lists of the Phrases, Contractions, &c., used in Prescriptions, with Explanatory Notes.—The Grammatical Construction of Prescriptions.—Rules for the Pronunciation of Pharmaceutical Terms.—A Series of (350) Abbreviated Prescriptions, illustrating the use of the preceding Terms—and A KEY, containing the same in an Unabbreviated Form, with Literal Translation. 32mo, Price 5s.

"A very useful work for Students preparing for an examination in Pharmacy."

Pharmaceutical Journal.

WORKS OF GENERAL INTEREST,

PUBLISHED BY

SAMUEL HIGHLEY, 32, FLEET STREET.

THE NATURALIST'S LIBRARY,

Edited by SIR W. JARDINE, Bart.

PEOPLE'S EDITION.

Publishing in Monthly Volumes, price 4s. 6d. each, cloth, gilt tops. Also in Parts, Price 1s. 4d. each, Three of which form a Volume.

Each Volume contains on the average from 300 to 400 pages of letter-press, and above 30 Plates, accurately coloured from Nature.

ORNITHOLOGY.

British Birds, 4 vols.
Sun Birds
Humming-Birds, 2 vols.
Birds of the Game Kind
Pigeons
Parrots
Birds of W. Africa, 2 vol.
Flycatchers
Peacocks, Pheasants, &c.

MAMMALIA.

Mammalia (Introduction)
British Quadrupeds

MAMMALIA—continued.

Monkeys
Lions, Tigers, &c.
Deer, Antelopes, &c.
Goats, Sheep, &c.
Dogs, 2 vols.
Horse, Zebra, &c.
Elephant, Rhinoceros,
&c.
Marsupials, or Pouched

Animals

Whales

Amphibious Carnivora; Perch Genus, &c.
the Walrus, Seals, &c.

ENTOMOLOGY.

Entomology, (Introduction)
British Butterflies
British Moths, &c.
Foreign Butterflies
Foreign Moths
Beetles
Bees.

ICHTHYOLOGY.

Fishes (Introduction)
British Fishes, 2 vols.
Fishes of Guiana, 2 vols.

The Volumes on Ornithology are now all published, and those on Mammalia are proceeding with monthly.

Each Subject is complete in one Volume unless otherwise expressed.

"A remarkably cheap edition of a work of established character, well printed and got up, and beautifully illustrated." — *Athenaeum.*

ANATOMY FOR ARTISTS.

HAND BOOK OF ANATOMY,

For STUDENTS OF THE FINE ARTS. Containing a Description of the Skeleton, and the External Muscles of the Human Figure. With Illustrations on Wood. By J. A. WHEELER, New Edition, improved, 8vo, Price 2s. 6d.

LIFE OF THE LATE DR. JAMES JOHNSON,

WITH SOME ACCOUNT OF HIS WRITINGS.

By his Son MR. HENRY JAMES JOHNSON. 8vo, with Portrait, Price 2s.

DR. JAMES JOHNSON'S WORKS.

Tour in Ireland, with Meditations and Reflections. 8vo, Price 8s. 6d.

Excursions to the Principal Mineral Waters of England. 8vo, Price 5s.

Pilgrimages to the German Spas. 8vo, Price 9s.

Change of Air, or the Pursuit of Health and Recreation. (4th Edit.) 8vo, 9s.

Economy of Health, or the Stream of Human Life from the Cradle to the Grave. (4th Edit.) 8vo, Price 6s. 6d.

An Essay on Indigestion. (10th Edit.) 8vo, Price 6s. 6d.

Practical Researches on Gout. 8vo, Price 5s. 6d.

The Influence of Tropical Climates on European Constitutions. (6th Edit.)

With additions by Mr. J. R. MARTIN, late Presidency Surgeon, and Surgeon to the Native Hospital, Calcutta. 8vo, Price 18s.

HIGHLEY'S GENERAL MEDICAL CATALOGUE

of Modern Works, with their Prices and Dates, Price 1s.

6070

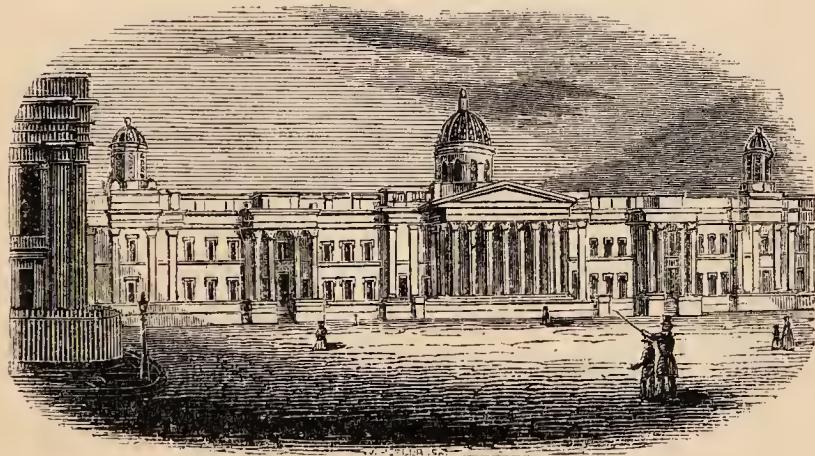
HAND-BOOK OF ANATOMY

FOR

STUDENTS OF THE FINE ARTS.

WITH ILLUSTRATIONS ON WOOD,

BY J. A. WHEELER.



LONDON:
SAMUEL HIGHLEY, 32, FLEET STREET.
1846.

LONDON :

Printed by S. & J. BENTLEY, WILSON, and FLEY,
Bangor House, Shoe Lane.

PREFACE.

THIS little Work has been published with the view of supplying what seemed, to the Compiler, to be much wanted by Students of Art ; viz. an Illustrated Pocket Hand-Book of the Bones and principal Muscles of the Human Figure ; arranged in a way suitable for the most easy reference ; and thus to be particularly convenient for them, while actually engaged in Drawing.

A Work so simple in its pretensions cannot be supposed to interfere with larger and more complete Works ; but is rather intended as an Introduction, and to be found useful where the necessary size of any, so complete, would render them cumbersome. But, to perfect his understanding of the Muscles, and their uses, a Student should be anxious to possess himself of a Work with enlarged and more varied Illustrations ;—and by far the most complete, in this respect, is the Folio of “Anatomical Studies,” from Drawings by the late John Flaxman ; the descriptions of which are generally adopted here. The present publication, however, will prove useful as a Companion, on account of its portability, and convenient method of arrangement.

INDEX.

TO THE

DESCRIPTIONS OF THE MUSCLES.

Abductor pol. manus G. Pl. 10.	Obliquus descendens	5
Anconeus 53	Occipito frontalis	30
Attollens aurem..... 31	Orbicularis oris	40
Biceps brachii..... 3	Orbicularis palpebrarum	32
Biceps femoris	Os hyoides..... See 42	
Brachialis internus	Palmaris	46
Buccinator k Pl. 9.	Pectinalis..... S. Pl. 6.	
Compressor naris	Pectoralis	4
Deltoides..... 2	Perforatus & Perforans	47
Depressor anguli oris	Peroneus brevis	58
Depressor labii inferioris	Peroneus longus	59
Extensor digitorum	Peroneus tertius	57
Extensor carpi radialis brevis..... 49	Plantaris..... I. Pl. 11.	
Extensor carpi radialis longus	Platysma myoides..... 1	
Extensor carpi ulnaris	Poupart's ligament	N. Pl. 6.
Extensor brev. digit. pedis, H. Pl. 11.	Pronator teres	43
Extensor long digit. pedis	Psoas magnus	U. Pl. 6.
Extensor pollicis	Rectus	6
Extensor primi internodii, K. Pl. 10.	Rectus femoris	12
Fallopious's ligament..... N. Pl. 6.	Sacro lumbalis	21
Fascialis	Sartorius	7
Flexor carpi radialis	Semimembranosus	26
Flexor carpi ulnaris	Semitendinosus	25
Flexor longus digitorum	Serratus major anticus	29
Flexor longus pollicis	Soleus	60
Gastrocnemius	Splenius, or the Splenii	41
Gemellus	Sterno-hyoideus	42
Glutæus maximus..... 24	Supinator radii longus	44
Glutæus medius..... 23	Ten do Achillis	G. Pl. 11.
Gracilis..... 9	Tensor vaginæ femoris	8
Hyoides os	Teres major	18
Iliacus internus	Teres minor	17
Infra spinatus..... 16	Tibialis anticus	55
Latissimus dorsi..... 20	Tibialis posticus	63
Levator auris	Trapezius	15
Levator anguli oris	Triceps	10
Levator labii	Triceps brachialis	19
Longissimus dorsi..... 22	Vastus externus	11
Masseter	Vastus internus	13
Mastoideus	Zygomaticus major & minor	35
Membranosus, or Fascialis		

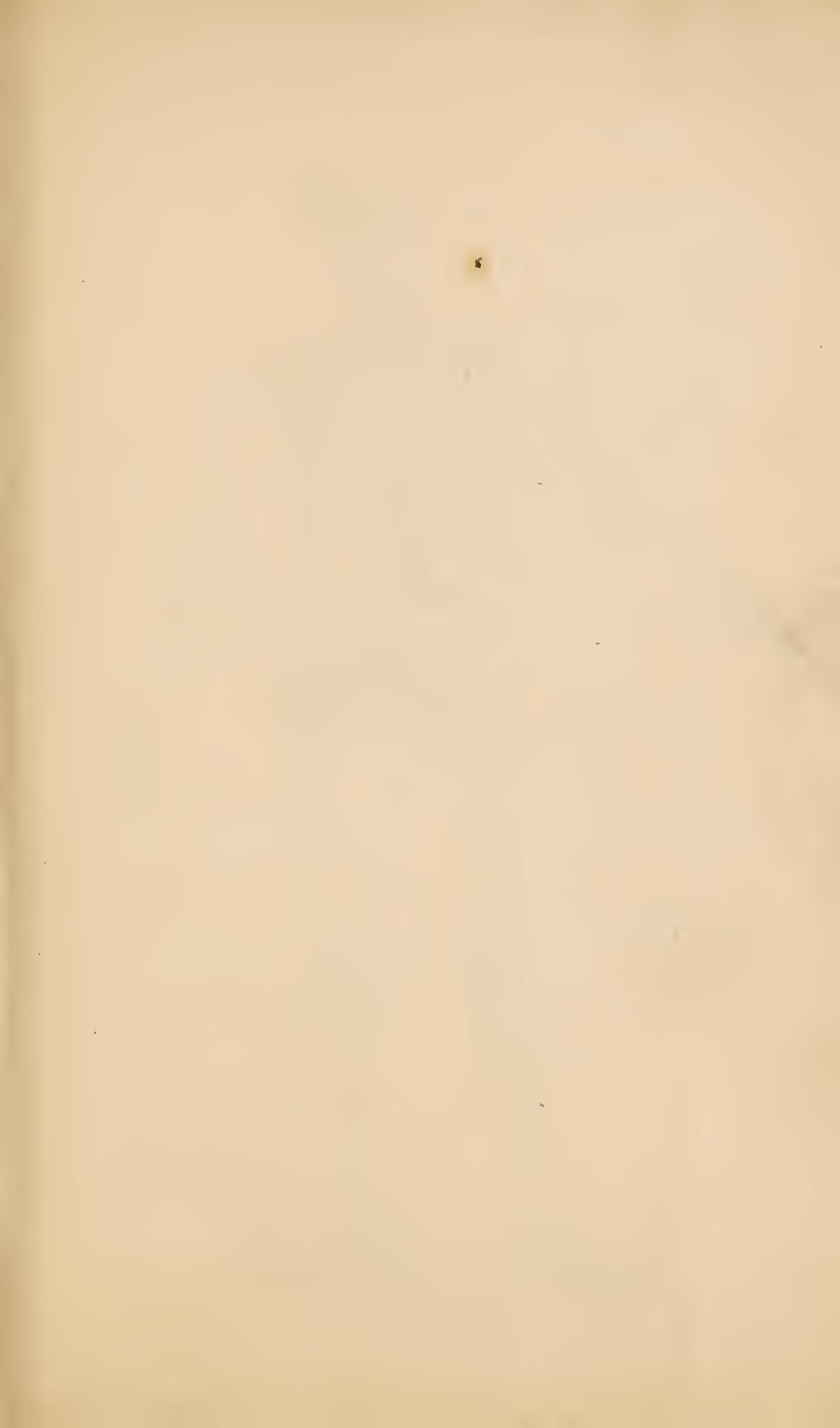
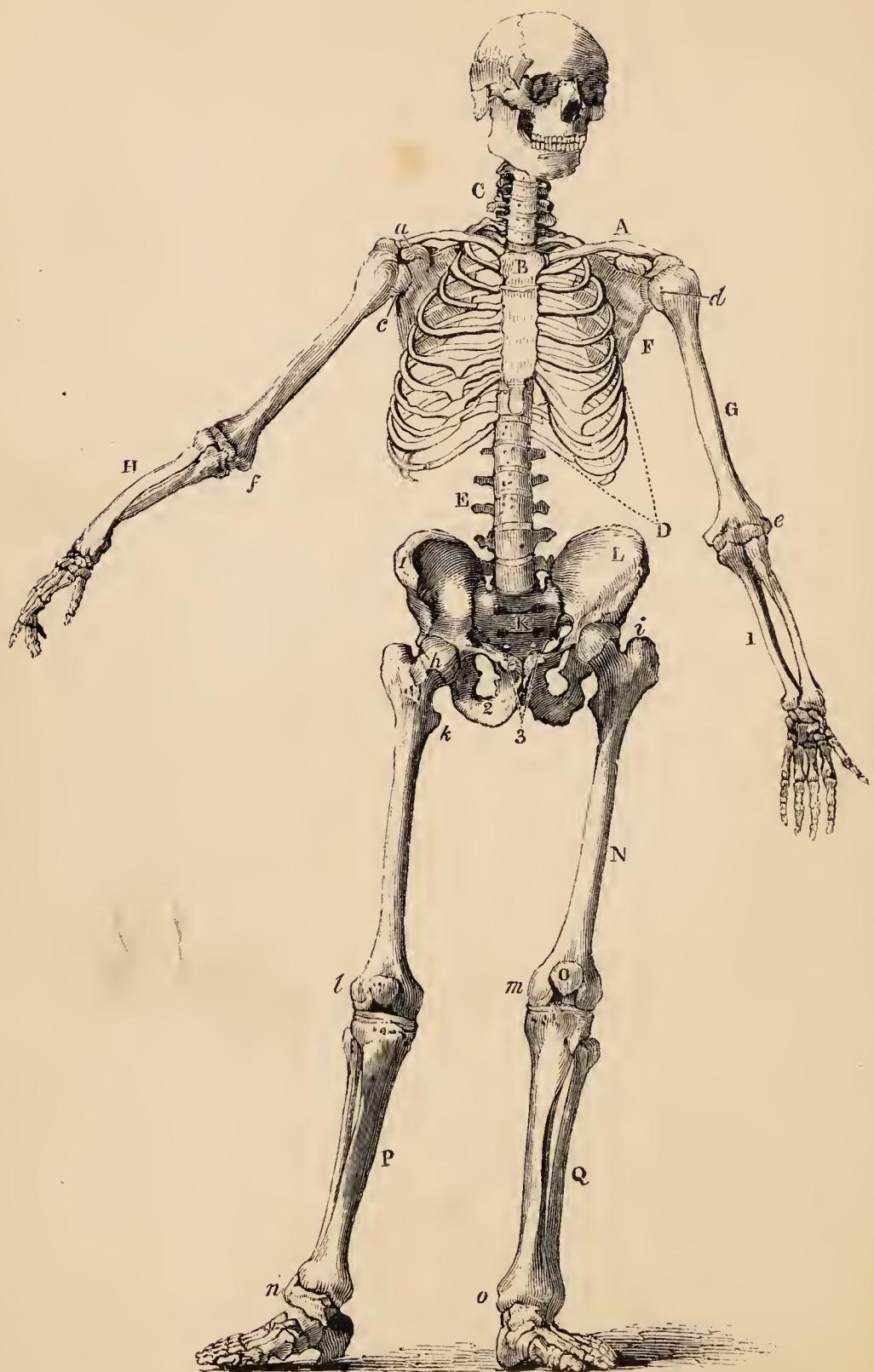


PLATE I.



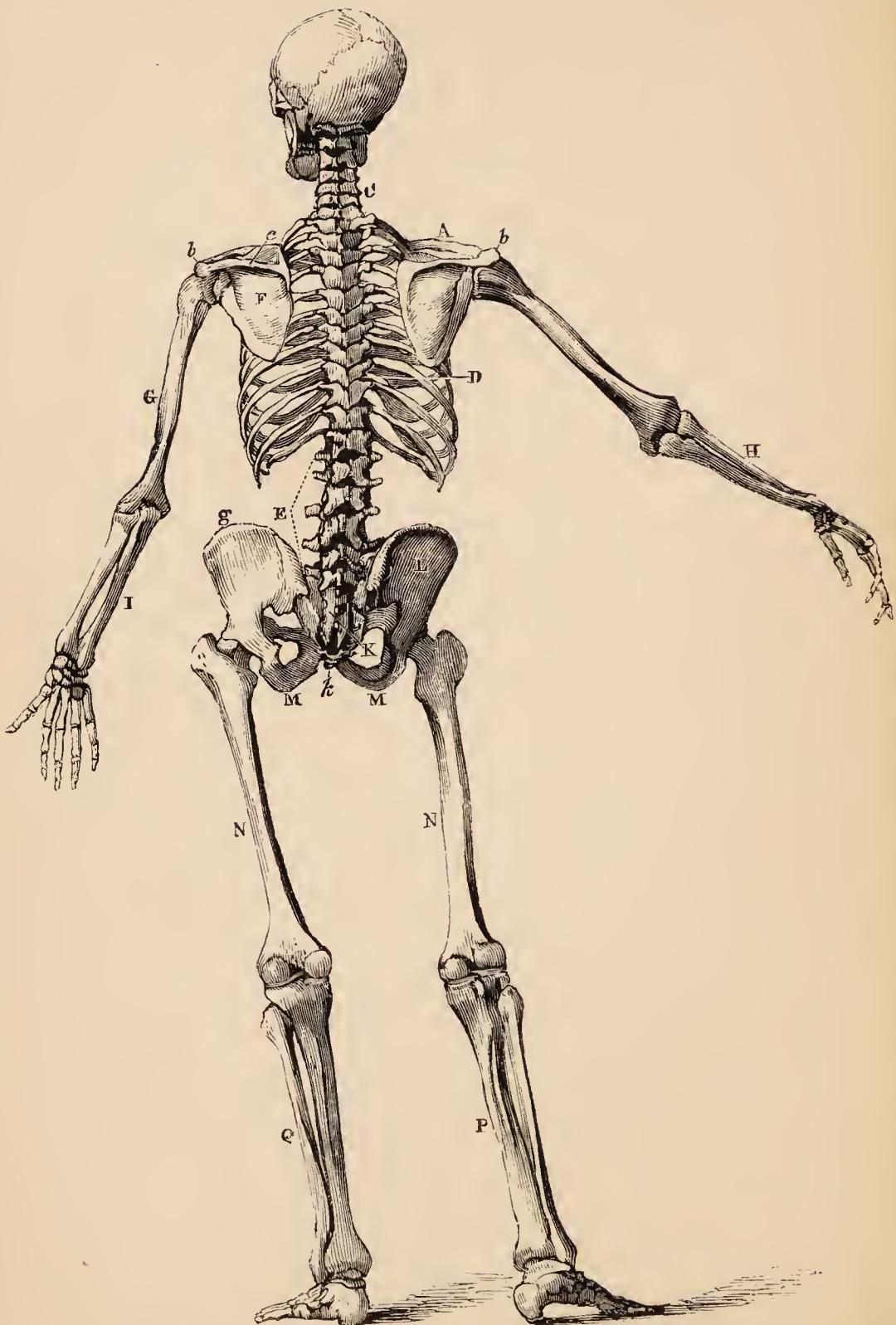
BONES OF THE FRONT SKELETON.

PLATE I.

BONES OF THE FRONT SKELETON.

A	Clavicle, or Collar-bone.	H	Radius } Bones of the Fore
B	Sternum, or Breast-bone.	I	Ulna } Arm.
C	The seven Cervical Vertebræ.	K	Os Sacrum.
D	The five False Ribs ; the seven upper ones being called True.	L	Os Innominatum.
E	The five Lumbar Vertebræ.	l	The Ilium.
F	Scapula, or Shoulder-blade.	2	Os Ischium.
a	Coracoid Process of the Sca- pula.	3	Os Pubis.
G	Humerus, or Arm-bone.	N	Femur, or Thigh-bone.
c	Head of the Humerus.	h	Head of the Femur.
d	A Sulcus, or Furrow, through which one of the heads of the Biceps passes.	i	Great Trochanter.
e	Outer Condyle of the Hu- merus, from which arise the Muscles that <i>extend</i> the Wrist and Fingers.	k	Lesser Trochanter.
f	Inner Condyle : here arise the Muscles which <i>bend</i> the Wrist and Fingers.	l	Outer Condyle of the Femur.
		m	Inner Condyle of the Femur.
		O	Patella, or Knee-pan.
		P	Tibia ; largest bone of the Leg.
		Q	Fibula.
		n	External Ankle.
		o	Internal Ankle.

PLATE II.



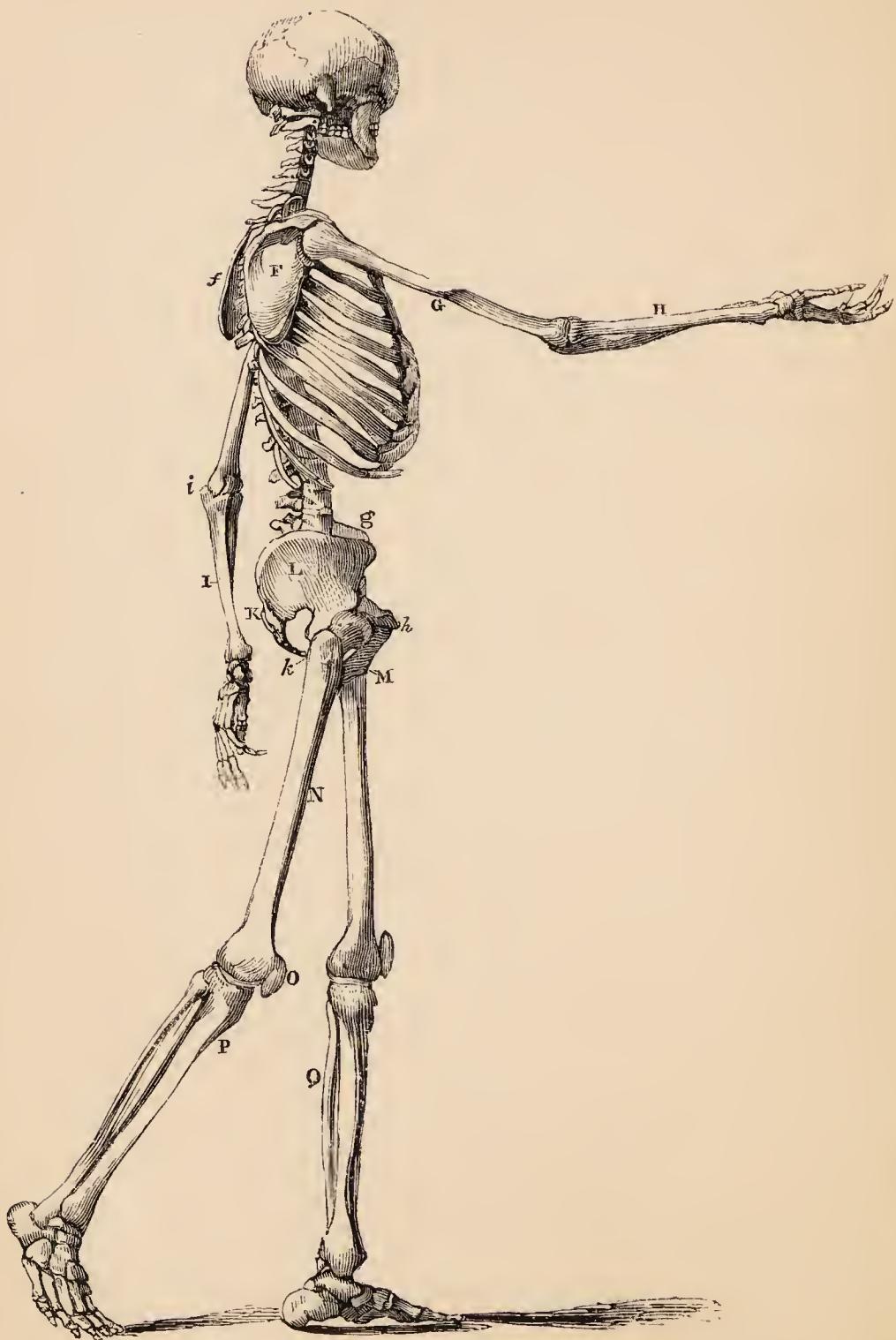
BONES OF THE BACK SKELETON.

PLATE II.

BONES OF THE BACK SKELETON.

A	Clavicle, or Collar-bone.	K	Os Sacrum.
C	The seven Cervical Vertebræ.	<i>k</i>	Os Coccygis.
D	The twelve Dorsal Vertebræ.	L	Os Ilium.
E	The five Lumbar Vertebræ.	M	Os Ischium.
F	Scapula, or Shoulder-blade.	N	Femur, or Thigh-bone.
<i>b</i>	Acromion of the Scapula.	P	Tibia : largest bone of the Leg.
<i>c</i>	Spine of the Scapula.	Q	Fibula.
G	Humerus.		
H	Radius } Bones of the Fore		
I	Ulna } Arm.		

PLATE III.



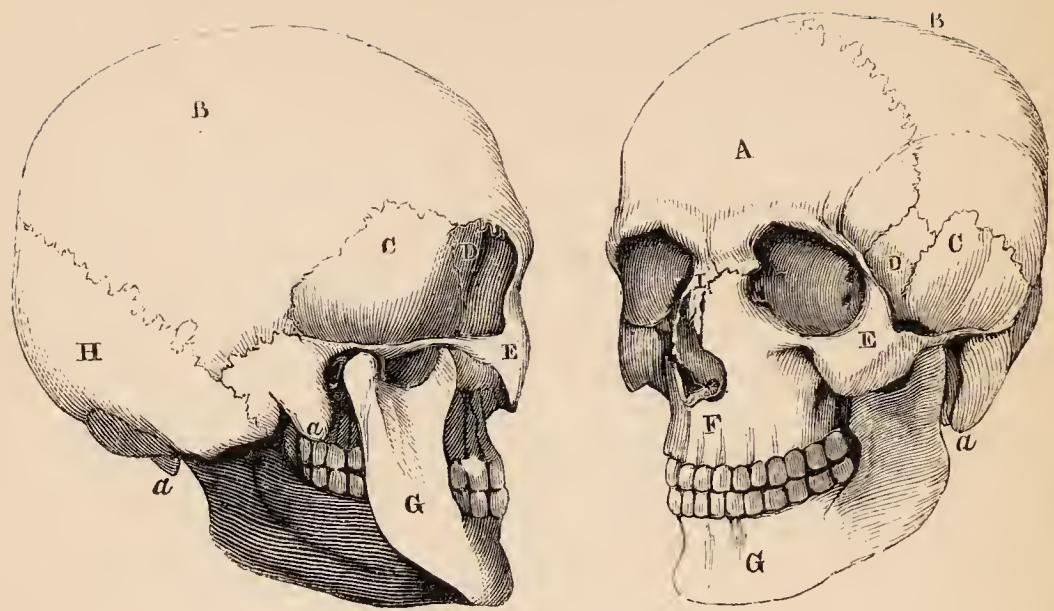
BONES OF THE SIDE SKELETON.

PLATE III.

BONES OF THE SIDE SKELETON.

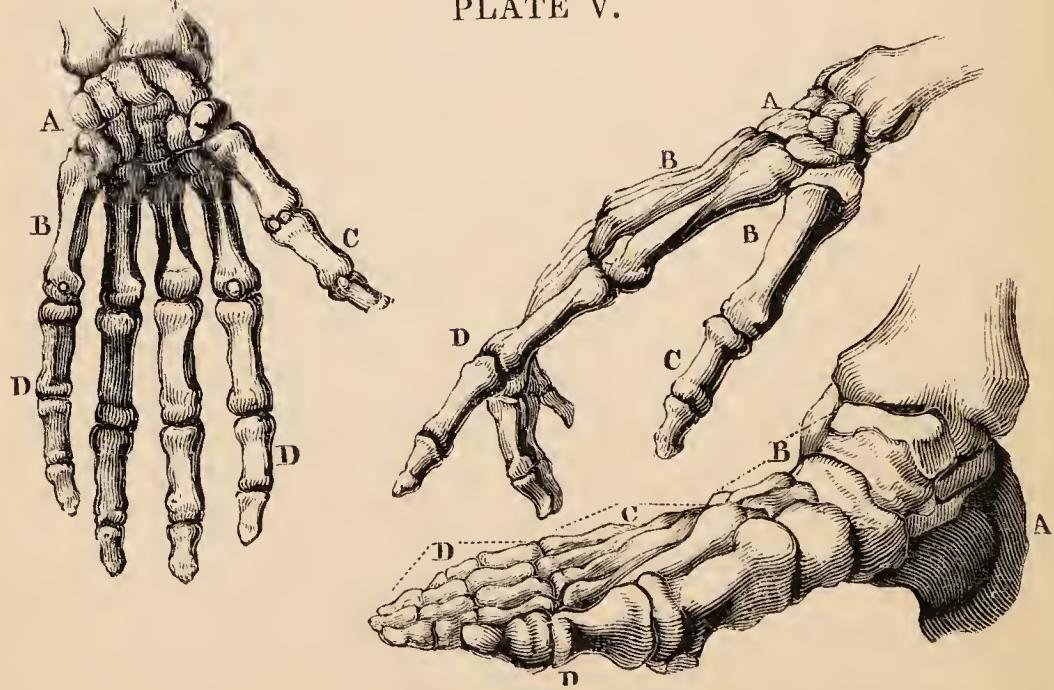
F	Scapula, or Shoulder-blade.	L	Os Ilium.
<i>f</i>	Base of the Scapula.	<i>g</i>	Spine of the Ilium.
G	Humerus.	<i>h</i>	Os Pubis.
H	Radius } Bones of the Fore-	M	Os Ischium.
I	Ulna } Arm.	N	Femur, or Thigh-bone.
<i>i</i>	Olecranon.	O	Patella, or Knee-pan.
K	Os Sacrum.	P	Tibia: largest bone of the Leg.
<i>k</i>	Os Coccygis.	Q	Fibula.

PLATE IV.



BONES OF THE HEAD.

PLATE V.



BONES OF THE HAND AND FOOT.

PLATE IV.

BONES OF THE HEAD.

A Os Frontis, or Forehead-bone.	F F Maxilla Superior, or Upper Jaw.
B B Ossa Parietalis or Bregmatis.	G G Maxilla Inferior, or Lower Jaw.
C C Os Temporum.	H Os Occipitis, or Back of Head.
D D Os Sphænoideum.	I Os Nasi.
a a The Mastoid Process.	
E E Os Jugale, or Os Malare.	

PLATE V.

BONES OF THE HAND.

A Bones of the Carpus, or Wrist.	C Bones of the Thumb.
B Bones of the Metacarpus, or Hand.	D Bones of the Fingers.

BONES OF THE FOOT.

A Os calcis, or Heel-bone.	C Bones of the Metatarsus, or Foot.
B Tarsus, or Instep, composed of six bones besides the Os Calcis.	D Bones of the Toes.

Of the bones of the Tarsus, immediately joining the Metatarsus, the three first, from the inner side of the foot, are called the **CUNEIFORM** Bones ; and the small outer one, the **Os CUBOIDES**.

The next bone of the Tarsus is called the **Os SCAPHOIDES**, or **Os NAVICULARE**.—Between it and the **Os Calcis** is the Astragalus, which supports the two bones of the leg.

PLATE VI.



MUSCLES OF THE FRONT FIGURE.

PLATE VI.

MUSCLES OF THE FRONT FIGURE.

A	Platysma myoides.	N	Poupart's, or Fallopius's Ligament.
a	Sterno hyoideus.	O O	Sartorius.
b	Mastoideus.	P	Tensor vaginæ femoris.
B	Deltoides.	Q	Gracilis.
C	Biceps brachii.	R	Iliacus internus.
D	Pronator radii teres.	S	Pectinalis.
E	Supinator radii longus.	T	Triceps abductor femoris.
F	Flexor carpi radialis.	U	Psoas magnus.
G	Palmaris longus.	V	Vastus externus.
H	Flexor carpi ulnaris.	W	Rectus femoris.
I	Pectoralis major.	X	Vastus internus.
K	Obliquus descendens.	Y	Gastrocnemius.
L L	Rectus.	y	Soleus.
L	Linea semilunaris.	Z	Tibialis anticus.
M	Linea alba.		

** The situation of some muscles will be found indicated in these plates, which are not of sufficient importance to need further notice.

DESCRIPTION OF THE MUSCLES OF THE FRONT FIGURE.

1. A PLATYSMA MYOIDES—*Arises* from the cellular covering of the upper part of the deltoid and pectoral muscles ; and runs obliquely upwards, along the side of the neck ; *Inserted* into the lower jaw between its angle and the origin of the depressor anguli oris. *Use*—To assist the depressor anguli oris ; and also draws up, when the mouth is shut, the skin to which it is connected, below the lower jaw.
2. B DELTOIDES—*Arises* from the outer part of the clavicle, from the spine and acromion of the scapula. It is composed of several lobes or parcels of flesh, which all join in one tendon ; and are *Inserted* into the outside of the humerus, four fingers' breadth below its head. *Use*—To raise the arm ; and assist it in every motion, except that of depressing it.
3. C BICEPS—*Arises* by two heads, one of which proceeds from the upper edge of the scapula : they both unite about the middle of the arm, and make one belly, which is *Inserted*, by a strong round tendon, into the tuberosity at the upper end of the radius. *Use*—To bend the fore arm.
4. I PECTORALIS—*Arises* from part of the clavicle, from the sternum, and from the six upper ribs ; and is *Inserted*, by a strong tendon, into the humerus, four fingers' breadth below its head. *Use*—Moves the arm forwards, and upwards towards the sternum.
5. K OBLIQUUS DESCENDENS—*Arises* from the two last true, and the five false ribs, by five or six digitations ; the four uppermost of which lie between the teeth of the serratus major anticus : it descends obliquely, by a broad and very thin tendon ; and, passing over the rectus, is *Inserted* all along the linea alba, to the upper and fore part of the spine of the ilium, and to the fore part of the os pubis. *Use*—Assists in expiration, and occasionally, in discharging the contents of the stomach and belly.

6. L **RECTUS**—*Arises* from the sternum, and the two last true ribs ; and is *Inserted* into the os pubis. *Use*—Raises the body when we lie on the back, and sustains it when bent backwards. It has three or four nervous or tendinous intersections or bands, which divide it, and make it appear like several muscles : the third of these bands is not, in every body, exactly in the same place ; it being sometimes even with the navel, and sometimes higher ; sometimes there is one of these bands below the navel.

7. O **SARTORIUS**—*Arises* from the upper and fore part of the spine of the ilium, and descending obliquely over the thigh, is *Inserted* into the inner and upper part of the tibia. *Use*—crosses the legs, in the manner tailors are used to sit ; and hence it has its name.

8. P **TENSOR VAGINÆ FEMORIS**.—This, covered by it, stretches the **MEMBRANOSUS**, or **FASCIALIS**, which *Arises* from the upper and fore part of the spine of the ilium : its fleshy part terminates at the great trochanter, where its membranous part begins ; and, spreading itself over the muscles of the thigh, passes to its *Insertion* on the upper part of the tibia. *Use*—Draws the legs and thigh outward.

9. Q **GRACILIS**—*Arises* from the os pubis, near its articulation ; and is *Inserted* into the upper and inner part of the tibia. *Use*—helps to bend the leg, and assists in bringing it and the thigh inwards.

10. T **TRICEPS**—is named from having three heads : the first and second *Arise* from near the articulation of the os pubis ; and the third from the tubercle of the ischium : they are *inserted* all along the spine of the femur. *Use*—Pulls the thigh inwards.

11. V **VASTUS EXTERNUS**—*Arises* from the great trochanter and external part of the femur, and is *Inserted* with the following muscles. *Use*—Extends the leg.

12. W **RECTUS FEMORIS**—*Arises* from the lower part of the spine of the ilium : this, and the two muscles V and X just above the knee, make one strong tendon ; which passes over the patella, to which it adheres, and is *Inserted* into the upper part of the tibia. *Use*—Extends the leg.

13. X VASTUS INTERNUS—*Arises* from the lesser trochanter and internal part of the femur, and is *Inserted* with the rectus femoris. *Use*—Extends the leg.

When a figure stands upright, and rests on one leg, there appear above the knee certain swellings, which are made by the tendon of the three last muscles and the skin, and which disappear when the knee is bent.

14. Y GASTROCNEMIUS—has two distinct fleshy originations from the hindermost part of the two protuberances of the thigh-bone: in their descent, they are dilated into two fleshy bellies; the innermost of which is thickest and largest, and, joining together, make a broad strong tendon, which unites with the tendon of the soleus, and is *Inserted* with it. *Use*—Extends the foot.

PLATE VII.



MUSCLES OF THE BACK FIGURE.

PLATE VII.

MUSCLES OF THE BACK FIGURE.

A	Mastoideus.		<i>h</i>	Extensor carpi radialis longus.
B	Trapezius, seu Cucullaris.		E	Sacro lumbalis.
<i>a</i>	Infra spinatus.		F	Longissimus dorsi.
<i>b</i>	Teres minor.		G	Glutæus medius.
<i>c</i>	Teres major.		H	Glutæus maximus.
C	Latissimus dorsi.		I	Semitendinosus.
D	Deltoides.		K	Semimembranosus.
<i>f</i>	Triceps brachialis.		L	Biceps femoris.
<i>g</i>	Anconeus.		M	Gastrocnemius externus.

DESCRIPTION OF THE MUSCLES OF THE BACK FIGURE.

15. B **TRAPEZIUS**—*Arises* from the hinder part of the head, from the spines of the vertebræ of the neck, and the eight upper ones of the back ; and is *Inserted* into the spine and acromion of the scapula and the clavicle. *Use*—To move the clavicle, scapula, head, and neck.—This muscle, passing over the scapula, contributes very much to a certain roundness we see in that part.
16. a **INFRA SPINATUS**—*Arises* from the cavity below the spine of the scapula ; and, filling that cavity, is *Inserted* into the humerus, a little below its head. *Use*—Draws the arm downwards and backwards.
17. b **TERES MINOR**—*Arises* from the inferior costa of the scapula adhering to the capsular ligament ; and is *Inserted* into the outside of the external tubercle of the humerus, below the infra spinatus. *Use*—To roll the humerus outwards, and to draw it backwards.
18. c **TERES MAJOR**—*Arises* from the lower angle of the scapula ; and is *Inserted* into the humerus, with the latissimus dorsi. *Use*—Helps to draw the arm downwards and backwards.
19. f **GEMELLUS, or TRICEPS BRACHIALIS**, is composed of the brachæus externus, which *Arises* about the middle and hinder part of the humerus ; the musculus longus, which *Arises* from the lower side of the scapula ; and the musculus brevis, which *Arises* from the hinder part of the humerus. These three make one tendon, which covers the elbow, and is *Inserted* into the hinder part of the olecranon. *Use*—To extend the fore-arm.
20. C **LATISSIMUS DORSI**—*Arises* from the hinder part of the spine of the ilium, from the upper spine of the os sacrum, from the spines of all the vertebræ of the loins, and from the seven lower ones of the back : it passes by the lower angle of the scapula, to which some of its fibres are fixed, and, joining with the teres major, is

Inserted with it into the humerus, three fingers' breadth below its head. *Use*—Helps to draw the arm downwards, and obliquely backwards. This muscle, at its origin, is so thin, that it does not hinder your seeing the action of the muscles that are underneath it ; but towards its *Insertion* it becomes very thick and fleshy.

21. E SACRO LUMBALIS—*Arises* from the upper part of the os sacrum, and back part of the spine of the ilium ; and is *Inserted* into the back part of the ribs, near their root.

22. F LONGISSIMUS DORSI—*Arises* from the same origin as the last muscles, and is *Inserted* partly into the processes of the vertebræ of the back, and partly into the ribs.

These last two muscles keep the body erect, bend it backwards, and sustain it when bent forwards ; and when they act only on one side, they draw the body sideways. Although these two last, and the splenius, are entirely covered by the trapezius and latissimus dorsi, their action and shape appear very plainly.

23. G GLUTÆUS MEDIUS—*Arises* from the spine and dorsum of the ilium : and is *Inserted* into the back part of the trochanter major. *Use*—To pull the thigh outwards, a little backwards ; and rotate it inwards.

24. H GLUTÆUS MAXIMUS—*Arises* from the external surface of the ilium, from the os coccygis and os sacrum ; and is *Inserted* into the thigh-bone, a hand's breadth below the great trochanter. *Use*—To extend and rotate the thigh inwards.

25. I SEMITENDINOSUS—*Arises* from the protuberance of the ischium, and is *Inserted* into the inner part of the tibia, below its articulation with the fibula. *Use*—Helps to bend the leg.

26. K SEMIMEMBRANOSUS—*Arises* from the protuberance of the ischium, and is *Inserted* into the upper and back part of the tibia. *Use*—Helps to bend the leg. N. B. These last two muscles form the inner hamstrings.

27. L BICEPS FEMORIS—*Arises* by two heads, one of which arises from the tuberosity of the ischium, the other from the linea aspera of the thigh-bone : they both join together, and are *Inserted*, by one tendon, into the upper part of the fibula. *Use*—Helps to bend the leg ; and is likewise employed in turning the leg and foot outwards, when we sit down. N. B. This muscle forms the outer hamstring.

PLATE VIII.



MUSCLES OF THE SIDE FIGURE.

PLATE VIII.

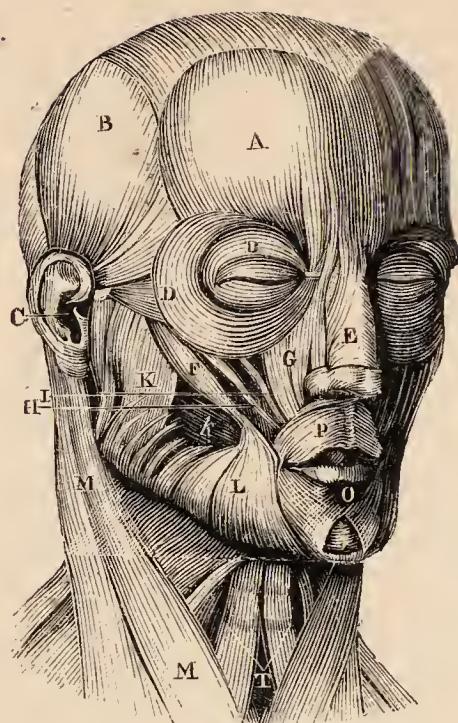
MUSCLES OF THE SIDE FIGURE.

A Deltoides.	O Vastus externus.
B Biceps brachii.	P Tendons of the semimembra-
C Brachialis internus.	nosus and semitendinosus
D Supinator radii longus.	muscles, forming the inner
E Triceps.	hamstring.
F Trapezius, seu Cucullaris.	Q Tendon of the biceps femoris,
G Latissimus dorsi.	forming the outer hamstring.
H Serratus major anticus.	S Gastrocnemius externus.
I Obliquus descendens externus.	T Soleus.
K Glutæus maximus.	U Peroneus tertius.
L Glutæus medius.	V Extensor longus digitorum
M Rectus femoris.	pedis.
N Vastus internus.	W Tibialis anticus.

DESCRIPTION OF THE REMAINING MUSCLES, AS
SHEWN ON THE SIDE FIGURE.

28. C BRACHIALIS INTERNUS—(This is partly covered by the biceps)
—*Arises* from the middle and internal part of the humerus, on each side of the deltoides ; and is *Inserted* into the upper and fore part of the ulna. *Use*—To bend the fore-arm.
29. H SERRATUS MAJOR ANTICUS—*Arises* from the six lower true ribs, and from the first and sometimes the second of the false ones, by so many distinct portions, resembling the teeth of a saw ; and is *Inserted* into the base of the scapula. *Use*—Moves the scapula forwards ; and, when the scapula is forcibly raised, to draw the ribs upwards.

PLATE IX.



MUSCLES OF THE HEAD AND NECK.

PLATE IX.

MUSCLES OF THE HEAD AND NECK.

A	Occipito frontalis.	k	Buccinator.
B	Levator auris, or Attollens aurem.	L	Depressor anguli oris.
C	Concha.	M	Sterno-cleido Mastoideus.
D	Orbicularis palpebrarum.	O	Depressor labii inferioris.
E	Compressor naris.	P	Orbicularis oris.
F	Zygomaticus major.	Q	Temporalis.
G	Levator labii superioris alæque nasi.	R	Splenius.
H	Zygomaticus minor.	S	Trapezius, seu Cucullaris.
I	Levator anguli oris.	T	Sterno-hyoideus.
K	Masseter.	a	Helix.
		b	Anti-helix.
		c	Concha.

DESCRIPTION OF THE MUSCLES OF THE HEAD AND NECK.

30. A OCCIPITO FRONTALIS—*Arises* from the occipital tuberosity : the tendon is expanded over the superior part of the cranium, and is *Inserted* into the teguments of the forehead and eyebrows. *Use*—To move the skin, and raise the eyebrows.
31. B ATTOLLENS AUREM, or LEVATOR AURIS—*Arises* from the tendon of the occipitis ; and is *Inserted* into the upper part of the ear, which is connected with the head. The action of this muscle is scarcely perceptible.
32. D ORBICULARIS PALPEBRARUM—surrounds the eyelids on the edge of the orbit ; and is fixed to the transverse suture which crosses the nose from the corner of the eye. *Use*—shuts the eyelids.
33. F LEVATOR ANGULI ORIS—*Arises* from the hollow of the superior maxillary bone, and is *Inserted* into the corner of the mouth. *Use*—to raise the corner of the mouth.
34. G LEVATOR LABII SUPERIORIS ALÆQUE NASI—*Arises* by two heads ; one from the lower edge of the orbit, the other from the nasal process of the superior maxilla ; and is *Inserted* into the upper lip, and the outer part of the wing of the nose. *Use*—To raise the upper lip, and dilate the nostrils.
35. H ZYGOMATICUS MAJOR & MINOR—*Arise* from the os malæ, near the zygomatic suture ; and are *Inserted* into the angle of the mouth and the orbicularis oris. *Use*—To raise the corners of the mouth, and to draw it outwards.
36. K MASSETER—*Arises* from the higher part of the upper-jaw, and is *Inserted* into the lower part of the under-jaw. *Use*—To raise the jaw, and draw it obliquely outwards.
37. L DEPRESSOR ANGULI ORIS—*Arises* from the under part of the lower jaw, at the side of the chin ; and is *Inserted* into the angle of the mouth. *Use*—To depress the corner of the mouth.

38. M MASTOIDEUS—*Arises*, by two distinct origins, from the sternum and part of the clavicle, and is *Inserted* into the mastoid process. *Use*—To turn the head to one side, and bend it forwards.

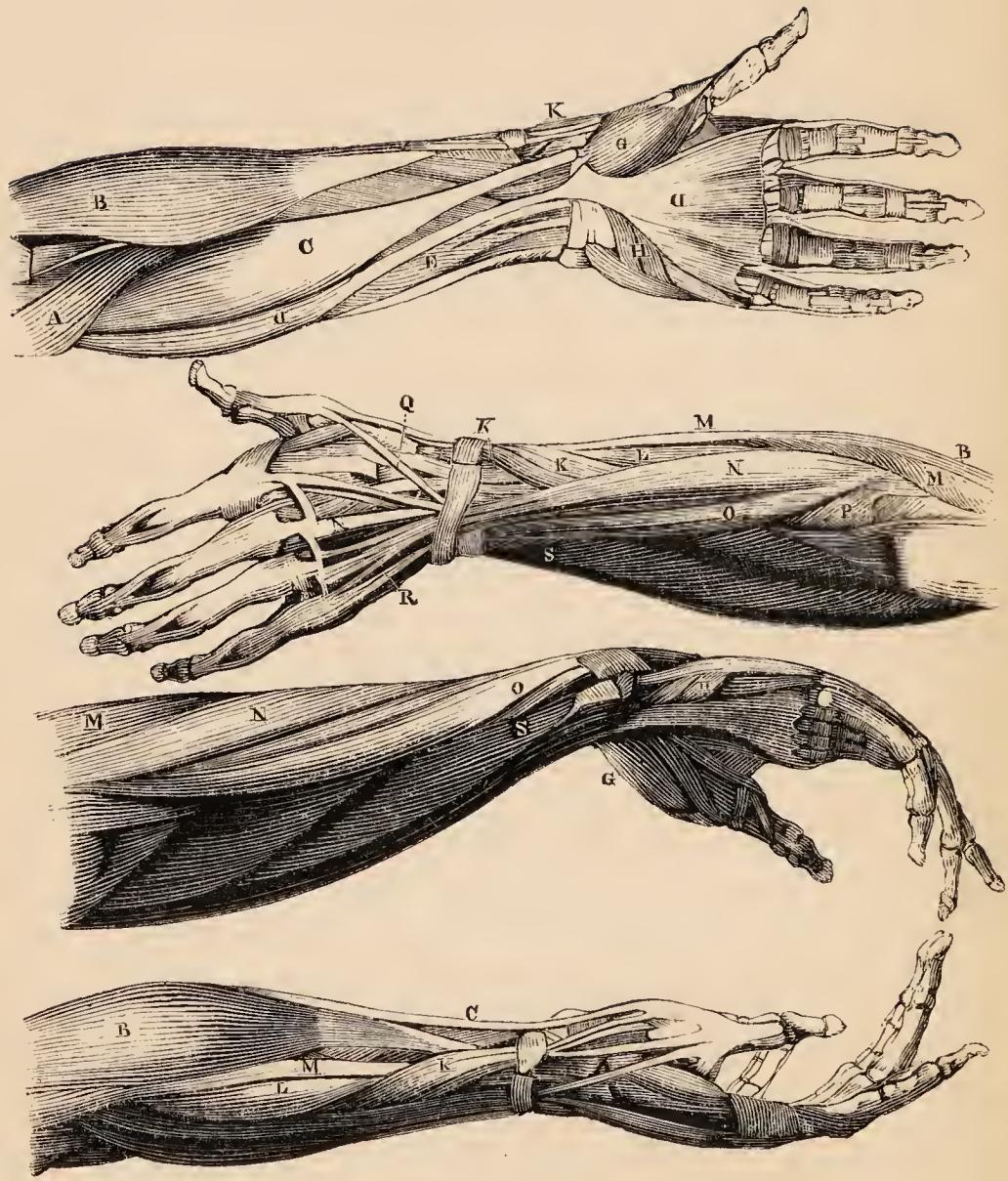
39. O DEPRESSOR LABII INFERIORIS—*Arises* from the inferior part of the lower-jaw, next the chin; runs obliquely upwards; and is *Inserted* into half the edge of the under-lip. *Use*—To depress the under-lip.

40. P ORBICULARIS ORIS—*Formed* by the insertion of the fibres of other muscles, and constitutes the principal part of the lips: it is *Inserted* into its fellow, at the angles of the mouth. *Use*—To shut the mouth.

41. R SPLENEUS, or SPLENII—*Arises* from the three lower vertebræ of the neck, and the five upper ones of the back; and is *Inserted* above the mastoid process. *Use*—To move the head backwards and sideways.

42. T STERNO HYOIDEUS—*Arises* from the sternum, the clavicle, and the cartilage of the first rib; and is *Inserted* into the base of the os hyoides (a prominence in the fore-part of the neck, situated behind and nearly upon a level with the base of the lower-jaw). *Use*—To depress the os hyoides.

PLATE X.



MUSCLES OF THE FORE ARM AND HAND.

PLATE X.

MUSCLES OF THE ARM.

A Pronator teres.	L Extensor carpi radialis brevis.
B Supinator radii longus.	M Extensor carpi radialis longus.
C Flexor carpi radialis.	N Extensor digitorum.
D Palmaris longus.	O Extensor carpi ulnaris.
E Perforatus, & Perforans.	P Anconeus.
G Abductor pollicis manus.	Q Extensor secundi internodii.
H Palmaris brevis.	R Extensor minimi digiti.
K Extensor pollicis.	S Flexor carpi ulnaris.
K Extensor primi internodii.	

DESCRIPTION OF THE MUSCLES OF THE FORE-ARM AND HAND.

43. A PRONATOR TERES—*Arises* from the inner protuberance of the humerus, where those bending the wrist and fingers arise; and descends obliquely to its *Insertion*, a little above the middle of the radius. *Use*—To roll the radius together, with the hand inwards.
44. B SUPINATOR RADIIS LONGUS—*Arises* from the ridge of the humerus, above the outer protuberance; and is inserted into the lower part of the radius. *Use*—Rolls the radius outwards, and, consequently, the palm of the hand upwards.
45. C FLEXOR CARPI RADIALIS—*Arises* from the inner protuberance of the humerus, and upper and fore part of the ulna; and is *Inserted* into the first bone of the metacarpus that sustains the forefinger. *Use*—This, and the flexor carpi ulnaris, bend the wrist and hand.
46. D PALMARIS—*Arises* from the inner protuberance of the humerus, and passing by a slender tendon to the palm of the hand, expands itself, and is *Inserted* into the bones of the metacarpus, and into the first bones of the fingers. *Use*—Helps the hand to grasp any thing closely.
47. E PERFORATUS, & PERFORANS, is the mass of flesh that appears under the flexor carpi radialis and palmaris. The perforatus *Arises* from the inner protuberance of the humerus, and from the radius and coronoid process of the ulna; and is divided into four tendons, which are *Inserted* into the second bones of the fore-finger. Just above their insertion, they are perforated or split, to give a passage to the tendons of the perforans; which arises from the upper part of the ulna, and is likewise divided into four tendons, which pass through the perforations just mentioned, and are inserted into the third bones of the fore-fingers. *Use*—To bend the fingers.

N.B. The muscles of the fore arm are never so strongly marked, as when the hand is shut, or grasps something with all its strength ; because then the internal muscles acting, the external ones are swelled more than ordinary.

48. K EXTENSOR POLLICIS—*Arises* from the hinder part of the middle of the radius and ulna; and passing obliquely over the tendon of extensor carpi radialis, is *Inserted*, by two or three tendons, into the bones of the thumb. *Use*—Extends the thumb.
49. L EXTENSOR CARPI RADIALIS BREVIS—*Arises* from the outer protuberance of the humerus, *Inserted* into the root of the metacarpal bone of the little-finger.
50. M EXTENSOR CARPI RADIALIS LONGUS—*Arises* from the outer protuberance of the humerus ; and is *Inserted* into the bones of the metacarpus that sustain the fore and middle finger. *Use*—The above two extend the wrist and hand.
51. N EXTENSOR DIGITORUM—*Arises* from the outer protuberance of the humerus, and from the outer part of the radius and ulna at the wrist ; it is divided into three tendons, which are *Inserted* into the bones of the first three fingers. *Use*—Extends the fingers.
52. O EXTENSOR CARPI ULNARIS—*Arises* from the outer protuberance of the humerus and ulna ; *Inserted* into the root of the metacarpal bone of the little-finger. *Use*—To extend the wrist and hand.
53. P ANCONEUS—*Arises* from the back part of the outer protuberance of the humerus ; and is *Inserted* into the ulna, four fingers' breadth below its head. *Use*—Helps to extend the arm.
54. S FLEXOR CARPI ULNARIS—*Arises* from the inner protuberance of the humerus and ulna ; and is *Inserted* into the little bone of the wrist. *Use*—This and the flexor carpi radialis bend the wrist and hand.

PLATE XI.

MUSCLES OF THE LEG AND FOOT.

A	Tibialis anticus.	G	Tendo Achillis.
B	Extensor longus digitorum pedis.	H	Extensor brevis digitorum pedis.
C	Peroneus tertius.	I	Plantaris.
D	Peroneus brevis.	K	Flexor longus digitorum pedis.
E	Peroneus longus.	L	Flexor longus pollicis pedis.
F	Soleus.	M	Tibialis posticus.

DESCRIPTION OF THE MUSCLES OF THE LEG AND FOOT.

55. A **TIBIALIS ANTICUS**—*Arises* from the upper and outer part of the tibia ; *Inserted* into the inner os-cuneiforme, and the base of the metatarsal bone of the great toe. *Use*—To bend the foot.
56. B **EXTENSOR LONGUS DIGITORUM PEDIS**—*Arises* from the upper part of the tibia ; *Inserted*, by four tendons, into the bones of the four small toes. *Use*—Extends the toes.
57. C **PERONEUS TERTIUS**—a portion of the last muscle, which *Arises* from the middle of the fibula ; *Inserted*, by a tendon, into the root of the metatarsal bone of the little toe. *Use*—To assist in bending the foot.
58. D **PERONEUS BREVIS**—*Arises* from above the middle of the outer part of the fibula ; and, passing under the groove of the outer ankle, is *Inserted* into the root and outer part of the metatarsal bone of the little toe.
59. E **PERONEUS LONGUS**—*Arises* from the upper and outer part of the peronea or fibula ; and, passing through the channel of the outer ankle, turns under the foot, and is *Inserted* into the root of the metatarsal bone of the great toe. *Use*—This, with the former, moves the foot outwards, and extends it a little.
60. F **SOLEUS**—*Arises* from the upper and back part of the tibia and fibula, and increases to a large fleshy belly, which lies under the gastrocnemius ; and, terminating in a very strong tendon, which by some is called the tendon of Achilles, is *Inserted* into the hinder part of the os calcis. *Use*—Extends the foot.—The action of this with the gastrocnemius and the flex.-long. digitorum is very necessary in running, leaping, jumping, walking, and standing on tiptoe ; and those who walk much, or carry heavy burdens, have these muscles larger than others.
61. K **FLEXOR LONGUS DIGITORUM**—*Arises* from the upper and inner part of the tibia ; and is *Inserted* into the last bones of all the toes, except the great toe. *Use*—To bend the toes.
62. L **FLEXOR LONGUS POLLICIS**—*Arises* from the back part of the fibula, below its head ; *Inserted* into the last joint of the great toe. *Use*—To bend the great toe.
63. M **TIBIALIS POSTICUS**—*Arises* from the back and upper part of the tibia and fibula ; and is *Inserted* into the os scaphoides, and partly into the under surface of the tarsal bones. *Use*—To move the foot inwards, and to turn the toes inwards.

